

REMARKS

Claims 1-17 and 19 are pending in the application. Claims 1-17 and 19 stand rejected. Claim 19 was objected to under 37 CFR 1.75 as being a substantially duplicate of claim 1.

Claim 1, it is respectfully submitted, is more narrow in scope than claim 19. Claim 1 recites the additional limitation that the center feed body "is formed by steps". Claim 19 does not limit the scope of invention to have a center feed body with steps; claim 19 more broadly recites a center feed body generically. Claim 19 would protect a broader, more general concept of the invention. For instance, claim 19 would protect a flat horizontal feed body having a plurality of inserts. MPEP 706.03(k) recites "indeed, a mere difference in scope between claims has been held to be enough". It is believed that the Examiner's objection is improper and should be withdrawn.

Claims 16 and 17 are rejected under 35 USC 102(b) as being anticipated by Britzke et al. Claim 16 recites an impeller table and claim 17 recites an impeller shoe.

Claims 16 and 17 stand rejected under 35 U.S.C. 102(b) as being anticipated by Britzke et al. The Britzke et al. patent discloses an impeller table with a plurality of shoes 10. No center feed body is disclosed, nor does the shoe in Britzke et al. have a convex shoe that reduces excessive normal forces and friction of the material against the shoe.

In item #3, the Examiner makes reference to the convex shape being "shown in Figure 1". Upon inspection of Figure 1, the applicant's observation of Figure 1 does not coincide with the Examiner's observation. Surface 22 does not look convex, but flat. The edge formed between side surface 12 and front surface 22 is linear, not curved outward as it should if surface 22 were curvilinear. The specification does not indicate surface 22 as being convex.

Britzke et al. does not disclose a center feed body (claim 16), nor does Britzke et al. disclose the impeller body having a convex shape (claims 16 and 17). Accordingly, the rejection under 35 USC 102 is believed improper as all the claimed limitations are not disclosed in Britzke et al. Each and every element recited in the claims must be explicitly disclosed in the reference for a proper rejection under 35 USC 102. Accordingly, it is submitted that the rejection of claims 16 and 17 be withdrawn and that claims 16 and 17 be allowed.

35 USC 103 REJECTION

Claims 1-15 and 19 are rejected under 35 USC 103(a) as being unpatentable over Adams in view of Bechler and Britzke et al.

Independent claims 1, 9 and 19 recite a central feed body having a plurality of hard material inserts. There is no recognition of a wear problem occurring on the center feed cone of the impeller plate shown in Adams, Bechler or Britzke et al. There is no motivation for an artisan to provide a plurality of hard material insert rods on the central feed body. The Examiner is using impermissible hindsight and has failed to demonstrate proper motivation to combine the Adams, Bechler and Britzke et al. references, under 35 USC 103, in order to establish a *prima facie* case of obviousness.

Adams shows the profile of a central feed disc in Figure 1. There is no description of the operation or details of the structure of the central feed disc in Adams. Further, there is no description of non-uniform flow across the center feed disc in Adams. At best, Bechler would teach an ordinary artisan to incorporate tungsten carbide inserts adjacent the impeller shoes along the flow path in Adams with hard material inserts. Bechler places carbide in locations where there is heavy flow of materials that causes greater wear. The central feed body in Bechler does not have such carbide inserts incorporated therewith. Bechler arguably teaches away from including hard material inserts on the central feed body. The inventor in Bechler, who was cognizant of solving wear problems with carbide, apparently did not consider it necessary to incorporate hard material inserts on the central body.

Where is the motivation to include a plurality of insert rods on the center feed body of Adams? The Adams patent is silent with respect to the material used to construct the center feed disc. The Adams center feed disc may be made from a material as hard or harder than the inserts disclosed by applicants Bechler/Britzke et al. For instance, if the center feed disc in Adams were made from tungsten carbide, there would be no reason to impregnate the center feed body with a plurality of hard material tungsten carbide insert rods.

The Britzke et al. patent does not disclose a central feed body as argued above. It is admitted that Britzke et al. does disclose hard material inserts employed on an impact crusher, but Britzke et al. discloses using inserts for impeller shoes and anvils and other components such as brackets, covers and the table, but not the central feed body, see column 5, lines 48-65. It is respectfully submitted that none of the references teaches or

suggests combining the art, Britzke et al., Bechler and Adams, as proposed by the Examiner. The references implicitly teach away from incorporating hard materials on the central feed body. The Examiner is using impermissible hindsight and has failed to demonstrate proper motivation to combine the Britzke et al., Bechler and Adams references under 35 USC 103 in order to establish a *prima facie* case of obviousness. Accordingly, it is submitted that claims 1, 9 and 19 be allowed. It is also respectfully requested that claims 2-8 and 10-14, which depend on claims 1 and 9, also be allowed for the above reasons.

In addition, in claims 4 and 11, the relationship of the top surface of an insert rod with regard to the bottom surface of an insert rod on the next adjacent step of the center feed body is recited. The purpose of this structural design is to limit the insert from being "washed out". The critical nature of this relationship is explicitly stated in the claims. This limitation set forth in claims 4 and 11 is not a matter of aesthetic "design choice". There is motivation for an ordinary artisan to modify a primary reference to establish a *prima facie* case of obviousness, unless perhaps the claim limitations serve no utilitarian purpose and are just ornamental.

In claims 5, the adjacent rows of insert rods on the liner and shoe are "stitched" for a purpose, and not a matter of aesthetic design choice. The stitched pattern, as explicitly recited in these claims, "protects the corner crease between the liner and shoe".

Similarly in claim 15, the adjacent rows of insert rods on the liner and shoe are "stitched". There is no teaching in the prior art that hard material inserts at the bottom of the shoe are even adjacent insert rods on the liner. Bechler shows flat carbide inserts in Figures 3 and 4, in which the impeller shoe is placed over top of some portions of carbide inserts. (see Figure 3). If carbide inserts extended beyond the flat surface of the table liner in Bechler, they would protrude above the flat liner surface in Bechler and interfere with the impeller shoe replacement; that is, the impeller would not sit flatly on the liner but on top of hard material inserts. Further, the Bechler pattern does not include any carbide on the impeller plate, although the inventor was cognizant of the benefits of placing carbide along other areas of high wear. The Examiner is using impermissible hindsight and has failed to demonstrate proper motivation to combine the Britzke et al., Bechler and Adams references under 35 USC 103 in order to establish a *prima facie* case of obviousness. Accordingly, it is submitted that claim 15 be allowed.

Claims 6-8 and 12-14 recite claim limitations that are not merely matters of ornamentation, but are positioned and oriented as claimed for a logical reason. The purpose of these claimed design limitations is generally set out in the specification and drawings.

The Examiner is requested to set out a *prima facie* case of obviousness with respect to the individual limitations (location and/or arrangement) recited in the claims. In particular, it is requested that the Examiner elaborate and identify the motivation as gleaned from Adams, Belchler and Britzke et al., for modifying Adams' crusher to have insert rods positioned and arranged as recited in the above-mentioned claims.

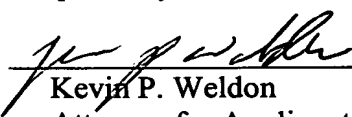
The prior art does not suggest or anticipate any benefits of modifying the center feed disc in Adams to have a plurality of insert rods. There is no extrinsic or intrinsic factor that would prompt one of ordinary skill in the art to combine the teachings of Britzke et al., Bechler and Adams. The Examiner has failed to demonstrate proper motivation to combine the Adams, Britzke et al. and Bechler references under 35 USC 103 in order to establish a *prima facie* case of obviousness. Accordingly, it is submitted that claims 1-15 and 19 be allowed.

In view of the above amendments and comments, it is believed that the claims are patentable over the art of record. Thus, applicant respectfully requests a Notice of Allowance indicating claims 1-17 and 19 as being allowable. If for any reason the Examiner does not believe that the application is in condition for allowance, the Examiner is requested to telephone applicant with any comments or questions (724-539-3848) in order to expedite prosecution of the application.

The Commissioner is hereby authorized to charge any fees, including additional filing fees required under 37 CFR 1.16 and 1.17, and fees for extension of time of two months, in connection with this submission to Kennametal Inc.-AMSG corporate Deposit Account No. 502832.

Respectfully submitted,

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